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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/380,203	04/25/2000	SUZANNE DE LA MONTE	0609.4370001	2325

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STERNE KESSLER GOLDSTEIN & FOX
1100 NEW YORK AVENUE NW
SUITE 600
WASHINGTON, DC 200053934

EXAMINER
WHITEMAN, BRIAN A

ART UNIT	PAPER NUMBER
1635	

DATE MAILED: 10/21/2002

28

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/380,203	DE LA MONTE ET AL.	
	Examiner	Art Unit	
	Brian Whiteman	1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-6,10-13 and 35-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *39-43, 48-49* is/are allowed.

6)☒ Claim(s) *1-3,5,6,10-13,35,44-47* is/are rejected.

7)☒ Claim(s) *36-38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *26* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Non-Final Rejection

Claims 1-3, 5-6, 10-13, 35-49 are pending examination.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/8/02 has been entered.

Applicants' traversal, amendment to claims 1, 6, 36, 37, 38, cancellation of claim 4, addition of claims 39-49 in paper no. 23 is acknowledged and considered.

Information Disclosure Statement

Article AR will not be initialed and dated because the examiner has already cited this document on an 892 form.

Drawings

The corrected or substitute drawings were received on 6/19/01. These drawings are acceptable.

Specification

After further review of the application and in view of the notice of deficiency for missing an abstract by the docket clerk on 2/5/01, the examiner cannot locate the abstract.

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Objections

Claims 36-38 are objected to as being dependent upon a rejected base claim (claim 1), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1, as best understood, is readable on a genus of a DNA molecule of SEQ ID NO: 1 or a DNA molecule which is at least 90% homologous to SEQ ID No: 1, or a fragment thereof, wherein said DNA molecules codes for a protein that has an activity of AD7c-NTP when expressed in neuronal cells, wherein the genus of the DNA molecule is not claimed in a specific biochemical or molecule structure that could be envisioned by one skilled in the art at the time the invention was made.

The specification contemplates fragments of the DNA molecule that code for proteins having the activity of SEQ ID NO: 1, which induces neuritic sprouting, nerve cell death, nerve cell degeneration, neurofibrillary tangles, and/or irregular swollen neurites in a host which **expresses** the DNA sequence (page 18, lines 28-30 and page 20, lines 1-2). The disclosure provides sufficient description of a species of expression of SEQ ID NO: 1. More specifically, the disclosure provides sufficient description for a cDNA designated AD7c-NTP (SEQ ID No: 1)

possessing the biological properties when **over-expressed** in neuronal cells. However, the specification does not provide sufficient description of a genus of polynucleotide sequences that possess any of the biological characteristics of SEQ ID No: 1 when the sequence is not over-expressed in said cells. It is not apparent that on the basis of the applicants' disclosure an adequate written description of the invention defined by the claims requires more than a mere statement that it is part of the claimed invention and reference to potential methods and/or molecular structures of molecules that are essential for the genus of DNA sequences that must exhibit the disclosed biological functions as contemplated by the specification.

It is not sufficient to support the present claimed invention directed to a genus of polynucleotide sequences, which induce neuritic sprouting, nerve cell death, nerve cell degeneration, neurofibrillary tangles, and/or irregular swollen neurites in a host **when expressed in neuronal cells**. The claimed invention as a whole is not adequately described if the claims require essential or critical elements, which are not adequately described in the specification and which is not conventional in the art as of applicant's effective filing date. Claiming a genus of a DNA molecule of SEQ ID NO: 1 and/or a DNA molecule which is at least 90% homologous thereof, that must possess the biological properties as contemplated by applicant's disclosure without defining what means will do so is not in compliance with the written description requirement. Rather, it is an attempt to preempt the future before it has arrived. (See *Fiers v. Revel*, 25 USPQ2d 1601 (CA FC 1993) and *Regents of the Univ. Calif. v. Eli Lilly & Co.*, 43 USPQ2d 1398 (CA FC, 1997)). Possession may be shown by actual reduction to practice, clear depiction of the invention in a detailed drawing, or by describing the invention with sufficient relevant identifying characteristics such that a person skilled in the art would recognize that the

inventor had possession of the claimed invention. Pfaff v. Wells Electronics, Inc., 48 USPQ2d 1641, 1646 (1998). The skilled artisan cannot envision the detailed structure of a genus of a DNA molecule, which displays at least 90% homology to SEQ ID No: 1 that must exhibit the contemplated biological functions, and therefore, conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the structures and/or methods disclosed in the as-filed specification. Thus, in view of the reasons set forth above, one skilled in the art at the time the invention was made would not have recognized that applicant was in possession of the claimed invention as presently claimed.

Applicants traverse the rejection of claim 1 under 112 written description for the following reasons: Guidelines for Written description (USPTO Synopsis of Application of Written Description Guidelines) indicate that a representative species may be adequately described through its structure, through its functional characteristics, or through a combination of structure and function; Thus, the description of both the structure and the function of the representative species has been provided throughout the specification; One of ordinary skill in the art would know how to generate DNA molecules that share 90% homology with another DNA molecule; Therefore, one skilled in the art would recognize that applicants were in possession of the claimed genus. See pages 8-14.

Applicants' traversal is acknowledged and is not found persuasive because the genus of nucleotide sequences having at least 90% homology to SEQ ID NO: 1 that has an activity of AD7c-NTP is not disclosed in the as-file specification. The specification contemplates a genus of nucleotide sequence with a function limitation. The specification only provides sufficient written description of the nucleotide sequence set forth in SEQ ID NO: 1 when it is **over-**

expressed in neuronal cells, wherein said overexpression of said sequence results in the reduction of frequency of at least one of neuritic sprouting, nerve cell death, degenerating neurons, neurofibrillary tangles, or irregular swollen neurites and axons in said cells. In addition, the as-filed specification and the traversal fail to provide the essential nucleotide or amino acid residues for a representative number of sequences, wherein each sequence is composed of at least 90% homologous to SEQ ID NO: 1, that has an activity of AD7c-NTP when expressed (under expression, normal expression, etc.) in neuronal cells, wherein said overexpression of said sequence results in the reduction of frequency of at least one of neuritic sprouting, nerve cell death, degenerating neurons, neurofibrillary tangles, or irregular swollen neurites and axons in said cells.

The as-filed specification does not provide an adequate written description of a representative number of species of DNA molecules with at least 90% homology coding for a AD7c-NTP polypeptide, which functions has an activity of AD7c-NTP when expressed in neuronal cells because the specification only provides adequate written description for the AD7c-NTP when it is over-expressed in neuronal cells. It is apparent from the state of the prior art exemplified by Ngo *et al.* (The Protein Folding Problem and Tertiary Structure Prediction, Birkhauser Boston, 1994, pp. 491-494) and Chiu *et al., Folding and Design*, 1998, pp. 223-228) that the description of the primary sequence of amino acid residues in which the positions of the amino acid residues are particularly arranged is essential for the biological function of the protein encoded by the sequence. This essential element that is required for an adequate description of a representative number of species as embraced by the claimed genus of AD7c-NTP encoded nucleic acid sequences is neither described sufficiently in the specification nor conventional in

the prior art. A mere statement asserting that any sequence having at least 90% homology to the only disclosed AD7C-NTP encoded in SEQ ID NO: 1 without providing the essential and specific arrangement of the amino acid residues positioned in the sequence does not lend evidentiary support for a skilled artisan to have recognized that applicant was in possession of the genus of AD7c-NTP encoded nucleic acid sequences as claimed, particularly since the essential element of the coding sequence of a generic AD7c-NTP is lacking from the as-filed specification and since the skill and knowledge in the art is not adequate or conventional to determine the primary sequence of the representative number of species of AD7c-NTP encoded genes or nucleic acids on the basis of the only disclosure of one AD7c-NTP protein encoded in SEQ ID NO: 1. Furthermore the example provided by the USPTO describes sequence with 95% identity to a claimed sequence with a specific functional limitation and the claimed invention is directed to a genus of sequences with 90% homology to SEQ ID NO: 1.

Claims 1-3, 5, 6, 10-13, 35-38, and 44-47, as best understood, are rejected under 35 U.S.C. 112, first paragraph, because the specification is enabling only for claims limited to:

> 1) A DNA construct, which encodes the polynucleotide sequence of AD7c-NTP is the nucleotide sequence set forth in SEQ ID NO: 1 or a nucleic acid sequence encoding the AD7c-NTP protein set forth in SEQ ID NO: 2, wherein, said AD7c-NTP is under control of a heterologous neuro-specific promoter;
> 2) The DNA construct of 1, which is contained within a vector.
> 3) The DNA construct of 1, which is contained in a virion.
> 4) A host cell transformed with the DNA construct of 1.
> 5) The host cell of 4, which is a neuronal cell.
> 6) An *in vitro* method for screening a candidate drug that is potentially useful for the treatment or prevention of Alzheimer's disease, neuroectodermal tumors, malignant astrocytomas, and glioblastomas, which comprises
> (a) administering a candidate drug to the neuronal cell of 5, and
> (b) detecting at least one of the following:
> (i) the suppression or prevention of expression of the protein encoded by the said DNA comprising SEQ ID NO: 1;
> (ii) the increased degradation of said protein encoded by said DNA; or

(iii) the reduction of frequency of at least of an one neuritic sprouting, a nerve cell death, a degenerating neurons a neurofibrillary tangles, irregular swollen neurites and axons in the cell; due to the drug candidate compared to a control which has not exposed to the candidate drug; and does not reasonably provide enablement for other

claimed embodiments embraced by the breadth of the claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

> Factors to be considered in determining whether a disclosure would require undue experimentation have been summarized in In re Wands, 858 F.2d 731, 8USPQ2d 1400 (Fed. Cir. 1988). They include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

Specifically, since the claimed invention is not supported by a sufficient description (for possessing a genus of a DNA molecule encoding at least 90% homology to SEQ ID No: 1) as recited in the claims, particularly in view of the reasons set forth above, one skilled in the art would not have known how to make and use the claimed invention so that it would operate as intended, e.g. said DNA molecule that codes for a protein having which induces neuritic sprouting, nerve cell death, nerve cell degeneration, neurofibrillary tangles, and/or irregular swollen neurites in a host when expressed in neuronal cells. In view of the state of the art and the as-filed specification, it is apparent that one skilled in the art would be able to determine a DNA sequence with 90 percent identity to SEQ ID No: 1. However, it is not apparent to one skilled in the art if the nucleic acid sequence with at least 90 percent homology to SEQ ID No: 1, would exhibit the same biological function of SEQ ID No: 1 (observed activity when the sequence is over-expressed in neuronal cells). Since, the relationship between a sequence of a peptide and its tertiary structure (i.e. its activity) are not well understood and are not predictable (e.g. see Chiu et al., *Folding and Design*, 1998, pp. 223-228), it would required undue

experimentation for one skilled in the art to arrive at other polynucleotides sequences that have SEQ ID No: 1 activity when expressed in neuronal cells. In addition, in *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.,* 18 USPQ2d 1016 (Fed. Cir. 1991), the court ruled that a claim to a large genus of possible genetic sequences encoding a protein with a particular function that needs to be determined subsequent to the construction of the genetic sequences may not find sufficient support under 35 U.S.C. 112, first paragraph, if only a few of the sequences that meet the functional limitations of the claim are disclosed and if undue experimentation would be required of one skilled in the art for the determination of other genetic sequences that are embraced by the claim. This is the case here. In other words, since it would require undue experimentation to identify other DNA sequences that have SEQ ID No: 1 activity when expressed in neuronal cells, it certainty would require undue experimentation to make their corresponding DNA and, therefore, any other sequences besides the full length cDNA of Seq. ID No: 1 are not enabled.

Furthermore, with respect to the *in vitro* methods contemplated in claims 10 and 44, the as-filed specification only provides sufficient guidance for one skilled in the art to use neuronal cells and not the full breadth of host cells encompassed by the claims. Furthermore, the claim encompasses an *in vitro* method, however, step (iii) in part b) of the claims read on an *in vivo* method. One skilled in the art would understand that neuronal cells possess the features set forth in the claims, however, other cells (liver cells, lungs cells, fat cells, etc.) do not possess the same features as described for neuronal cells. In addition, it is not apparent to one skilled in the art how to use an in vitro method with steps comprising using a host (*in vivo*). Thus, it would take one skilled in the art an undue amount of experimentation to reasonably extrapolate from using neuronal cells in the claimed methods to using any other type of host cells because other cells

would not possess neuritic sprouting, nerve cell death, degenerating neurons, etc. or a host in an in vitro method as contemplated by the claimed methods.

In conclusion, the as-filed specification and claims coupled with the state of the art at the time the invention was made only provide sufficient guidance and/or evidence to reasonably enable the claimed invention encompassing 1-6, listed above. Given the state of art for determining the core structure of SEQ ID NO: 1 when over expressed in neuronal cells, one would have to engage in a large quantity of experimentation in order to practice the full scope of the claimed invention (DNA molecule has an activity of AD7c-NTP when expressed in neuronal cells) based on the application's disclosure, the unpredictability of the relationship between a sequence of a peptide and its tertiary structure (i.e. its activity) (Chiu et al. and Ngo et al.). In addition, the presence of a working example as provided in the specification does not reasonably extrapolate to the full scope of the claimed invention, particularly given that there is no evidence that the DNA sequence (Seq. ID No 1) of AD7c-NTP is a general phenomenon for any sequence with at least 90% homology to Seq. ID No. 1 when expressed in neuronal cells.

Applicants' traverse the rejection of claims 1-3, 5, 6, and 10-13 under 112 enablement for the following reasons: The description of both the structure and the function of the representative species has been provided throughout the specification; One of ordinary skill in the art would know how to generate DNA molecules that share 90% homology with another DNA molecule; Assays are described that can be used to identify DNA molecules that encode proteins that posses an activity of AD7c-NTP. Therefore, it would not require one skilled in the art an undue amount of experimentation to identify the members of the claimed genus of DNA molecules. See pages 14-21.

Applicants' traversal is acknowledged and to the extent that it is applicable to the rejection under 11 first paragraph enablement, is not found persuasive because the disclosure does not provide a representative number of nucleotide sequences that has an activity of AD7c-nTP other than the nucleotide sequence set forth in SEQ ID No: 1 and the nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO: 2 for one skilled in the art to make and/or use the entire breadth of the claimed invention. In addition, the as-filed specification fails to provide the essential nucleotide or amino acid residues for a representative number of sequences, wherein each sequence is composed of at least 90% homologous to SEQ ID NO: 1, that has an activity of AD7c-NTP when **expressed** in neuronal cells.

More specifically, the as-filed specification provides sufficient guidance for SEQ ID NO: 1 when SEQ ID NO: 1 is over-expressed in neuronal cells. However, the as-filed specification does not provide sufficient guidance for the genus of nucleotide sequences that has an activity of AD7c-NTP when **expressed** in neuronal cells. For example, it is not apparent what activity SEQ ID NO: 1 displays when it is expressed at basal level or under expressed in a neuronal cell. Thus, it would require an undue amount of experimentation for one skilled in the art to reasonably correlate the activity of any SEQ ID NO: 1 when over-expressed in neuronal cells to any sequence that has an activity of AD7c-NTP when expressed in neuronal cells because the specification does not provides sufficient guidance for the full breadth of any activity of AD7c-NTP when expressed (basal level expression, lower than normal level of expression) in neuronal cells. Furthermore, the applicants' traversal is not found persuasive because the traversal is based on assays for how to identify the DNA molecules that possess activity of AD7c-NTP. The assertion that a biological assay is routine for one skilled in the art does not provide sufficient or

factual evidence for one skilled in the art to make and/or use a representative number of nucleotide sequences with at least 90% homology that has an activity of AD7c-NTP when expressed in neuronal cells and would result an undue amount of experimentation for one skilled in the art because there are an enormous number of nucleotide sequences with 90% homology to SEQ ID NO: 1. Furthermore, the as-filed specification or the applicants' traversal lacks sufficient or factual evidence for which specific sequences exhibit the function as contemplated by the breadth of the claims (same activity as AD7c-NTP when over-expressed in neuronal cells) since it is known for nucleic acids as well as proteins, for example, that even a single nucleotide or amino acid change or mutation can destroy the function of the nucleotide sequence in many instances. The effects of these changes are largely unpredictable as to which mutation has a significant effect versus not (see Chiu and Ngo). It is the specification, not the knowledge of one skilled in the art that must supply the novel aspects of an invention in order to constitute adequate enablement, e.g. Genetech Inc. v. Novo Nordisk A/S, 108 F.3d 1361, 1366, 42, USPQ2d 1001, 1005 (Fed. Cir. 1997).

Furthermore, with respect to the assertion that the specification provides methods for obtaining DNA molecule, which are at least 90% homologous to SEQ, ID NO: 1 that have AD7c-NTP activity when **expressed** in neuronal cells.

The court in Enzo 188 F.3d at 1374, 52 USPQ2d at 1138 states:

It is well settled that patent applications are not required to disclose every species encompassed by their claims, even in an unpredictable art. However, there must be sufficient disclosure, either through illustrative examples or terminology, to teach those of ordinary skill how to make and use the invention as broadly as it is claimed.
In re Vaeck, 947 F.2d 48, 496 & n.23. 30 USPQ2d 1438, 1445 &n23 (Fed. Cir. 1991)(citation omitted). Here, however, the teachings set forth in the specification provide no more than a "plan" or "invitation" for those of skill in the art to experiment...; they do not provide sufficient guidance or specificity as to how to execute that plan. See Fiers v. Revel. 984 F.2d.1164, 1171,

25 USPQ2d 1601, 1606 (Fed. Cir. 1993); In re Wright, 999 F.2d...[1557], 1562, 27 USPQ2d...[1510], 1514. [Footnote omitted].

On this record, it is apparent that the specification and the applicants' traversal (See page 17 of traversal, which states, "the specification provides various methods for assaying for AD7c-NTP activity" provide no more than a plan or invitation in view of the art of record exemplifying the unpredictability of using any nucleotide sequence with 90% homology to SEQ ID NO: 1 that has an activity of AD7c-NTP when expressed in neuronal cells, for those skilled in the art to experiment with level of expression so as to provide a nucleotide sequence with the same activity of SEQ ID NO: 1 (overexpression of SEQ ID NO: 1 in neuronal cells results in the reduction of frequency of at least one neuritic sprouting, nerve cell death, degenerating neurons, neurofibrillary tangles, or irregular swollen neurites and axons in the host) as intended by the as-filed specification at the time the invention was made.

See also Genetech Inc. v. Novo Nordisk A/S, 108 F.3d 1361, 1366, 42, USPQ2d 1001, 1005 (Fed. Cir. 1997)

> ("Tossing out the mere germ of an idea does not constitute enabling disclosure. While every aspect of a generic claim certainly need not have been carried out by an inventor, or exemplified in the specification, reasonable detail must be provided in order to enable the public to understand and carry out the invention.")

In view of the art of record and the lack of guidance provided by the specification; the specification does not provide reasonable detail for what amino acids are required for a DNA molecule codes for a protein that has an activity of AD7c-NTP when **expressed** in neuronal cells, and it would take one skilled in the art an undue amount of experimentation to reasonably extrapolate from the assertion in the specification to the full breadth of the claimed invention. Therefore, the as-filed specification is not enabled for the claimed invention. Thus, the assertion

that assays are routine for one skilled in the art results in an unpredictable and therefore unreliable correspondence between the sequences and the biological activity of known function and therefore lacks support regarding enablement.

Claims 39-43 and 48-49 are in condition for allowance because they are free of the prior art.

However, no other claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Whiteman whose telephone number is (703) 305-0775. The examiner can normally be reached on Monday through Friday from 7:00 to 4:00 (Eastern Standard Time), with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's mentor, primary examiner, Dave Nguyen can be reached at (703) 305-2024.

If attempts to reach the primary examiner by telephone are unsuccessful, the examiner's supervisor, John L. LeGuyader, SPE - Art Unit 1635, can be reached at (703) 308-0447.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center number is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Brian Whiteman
Patent Examiner, Group 1635
10/18/02

DAVE T. NGUYEN
PRIMARY EXAMINER